



**A Report to the  
Audit Committee**

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**Audit of the Metro Water Services  
Home Buyout Program**



January 29, 2014

Metropolitan  
Nashville  
Office of  
Internal Audit

## EXECUTIVE SUMMARY

January 29, 2013



### Why We Did This Audit

The audit was initiated based on a request from the Deputy Finance Director and the Director of Metro Water Services.

### What We Recommend

Management should thoroughly evaluate different funding sources available for large programs and apply for reimbursements accordingly.

For more information on this or any of our reports, email [Mark.Swann@nashville.gov](mailto:Mark.Swann@nashville.gov)

# METRO WATER SERVICES HOME BUYOUT PROGRAM

## BACKGROUND

The mission of Metro Water Services is to provide drinking water, wastewater treatment, and stormwater management services to our community. The Stormwater Division was tasked with managing the home buyout program after the historic 2010 flood. The program was designed to assist homeowners who sustained damage due to flooding or whose homes were considered high risk for future flood damage.

## OBJECTIVES AND SCOPE

The objectives of the audit were to determine the following:

- Contracting procedures were followed in the procurement of appraisals, demolition, and title services.
- External grantor compliance requirements were met.
- Metropolitan Nashville's grant process was followed.

The audit scope included May 1, 2010, through September 30, 2013.

## Grants Received

All Related Grant Projects	Amount
Total Funds - Home Buyout Program	\$48,173,315
- Delray Drive/West Hamilton Avenue	9,463,090
- West Hamilton Avenue/Hite Street	5,210,990
- Benzing Road/Park Terrace	15,233,180
- Miami Avenue	8,839,440
- Pennington Bend Road	5,842,470
- Yale Avenue	3,584,145

*Source: Signed contract between Metropolitan Nashville and Federal Emergency Management Agency*

Totals above include the Metropolitan Nashville agreed upon contribution to the home buyout program.

## WHAT WE FOUND

Ineligible costs were reimbursed based on the re-categorization of those costs into eligible categories by Metro Water Services.

## GOVERNANCE

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The Stormwater Division of Metro Water Services is responsible for oversight and administration of the Home Buyout Program. This division provides awareness information about the program, manages property buyout projects, and maintains all records and reimbursement requests to the Tennessee Emergency Management Agency. Also, the Tennessee Department of Military will periodically review property files for compliance with specific program guidelines and regulations, and the Tennessee Emergency Management Agency reviews each reimbursement request.

## BACKGROUND

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The Nashville 2010 flood caused severe damage to structures and homes all around Davidson County. The President of the United States declared the flood a major disaster. This declaration allowed for the availability of federal funding for Nashville's citizenry in the recovery process.

In order to assist those homeowners who experienced severe damage to their homes, Metropolitan Nashville officials developed an aggressive home buyout program. Under the plan, the Federal Emergency Management Agency paid 75 percent of the cost to purchase damaged homes within Nashville's floodway<sup>1</sup>. The Tennessee Emergency Management Agency and Metropolitan Nashville were each responsible for a 12.5 percent share of costs. In addition to homes within the floodway, Metropolitan Nashville's plan included purchasing excessively damaged homes that were within the much broader 100-year floodplain.

The amount offered for each home was based on an appraisal of the home, *at its pre-flood value*. If the homeowner chose to participate in the program, the home was demolished and the property maintained by Metro Water Services. The remaining demolished properties (less than 10 percent) were handed over to Metro Parks and Recreation for possible use as green space. While the buyout program itself is not new, the program in Nashville had never been implemented on such a large scale. Before the 2010 flood, Metro Water Services previously purchased 90 homes; 54 with federal Hazard Mitigation grant funds in flood-prone areas and 36 with other funding sources. These houses would have presumably been destroyed during the 2010 flood.

There were 267 homeowners offered the buyout option with 226 of those homeowners electing to sell their homes to Metropolitan Nashville for the appraised value. As of the end of field work on the audit project, 223 of those homes had been acquired and demolished.

## FINANCIAL INFORMATION

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Metro Water Services applied for several Hazard Mitigation grants administered from the Federal Emergency Management Agency through the Tennessee Emergency Management Agency. Metro Water Services was eventually awarded six Hazard Mitigation grants. Metro Water Services also submitted claims under the National Flood Insurance Program's Increased Cost of Compliance coverage for demolition only. The Hazard Mitigation grant awards were based on the estimated cost it would take to complete each project. Claims for the Increase Cost of Compliance coverage were based on actual demolition cost.

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<sup>1</sup> refers to the designated area in immediate proximity to waterways that experience regular flooding

## Status of Hazard Mitigation Grants as of September 30, 2013

Hazard Mitigation Grant Projects	Financial Highlights – Projected Cost			
	Award Amount	Federal Emergency Management	Tennessee Emergency Management	Metro Nashville
Delray Drive/West Hamilton Avenue	\$ 9,463,090	\$ 7,097,318	\$1,182,886	\$1,182,886
West Hamilton Avenue/Hite Street	5,210,990	3,908,243	651,374	651,374
Benzing Road/Park Terrace	15,233,180	11,424,885	1,904,148	1,904,148
Miami Avenue	8,839,440	6,629,580	1,104,930	1,104,930
Pennington Bend Road	5,842,470	4,381,853	730,309	730,309
Yale Avenue	3,584,145	2,688,109	448,018	448,018
<b>Total</b>	<b>\$48,173,315</b>	<b>\$36,129,988</b>	<b>\$6,021,664</b>	<b>\$6,021,665</b>

Source: Signed contract between Metropolitan Nashville and Federal Emergency Management Agency.

## OBJECTIVES AND CONCLUSIONS

1. *Were contracts awarded for appraisals, demolition, and title services in compliance with Metropolitan Nashville, State, and Federal criteria where applicable?*

**Generally yes.** Metro Water Services, with the assistance of Metropolitan Nashville’s Purchasing Division, competitively bid each service required from acquisition to demolition. However, some specific elements of the total costs were indeterminable since contracts were bid by lump sum bids. The consolidated amounts for demolition failed to distinguish item amounts charged for various ineligible functions such as straw and seed; demolition for driveways, fences, pools, and detached garages. As a result, compliance with the guidelines for Increase Cost of Compliance could not be proven. (See Observation A)

2. *Was Metropolitan Nashville’s grant process followed?*

**Yes.** Metropolitan Nashville’s grant process was followed.

3. *Were individual grants compliance guidelines followed?*

**Generally Yes.** A review of 34 properties acquired as a result of the May 2010 flood demonstrated general compliance with the Hazard Mitigation Grant Program. However, compliance could be improved in the following areas:

### *Demolition*

- 15 properties (100 percent of Increased Cost of Compliance coverage properties reviewed) requested reimbursement for ineligible cost. (See Observations A and B.)
- Metro Water Services could not submit all eligible expenses to the grantor because proper documentation was not maintained. (See Observation B.)

### *Acquisition*

- Three properties (34 properties reviewed) had errors related to Duplication of Benefits. (See Observation C.)

## **AUDIT OBSERVATIONS**

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The Committee of Sponsoring Organizations of the Treadway Commission, Internal Control – Integrated Framework, Control Environment component recommends management and the board of directors establish mechanisms to communicate and hold individuals accountable for performance of internal control responsibilities and implement corrective action as necessary. The audit observations listed are offered to assist management in fulfilling their internal control responsibilities.

### ***Observation A: Ineligible costs were submitted for reimbursement.***

Federal regulation, 2 Code of Federal Regulations § 225, states cost must be necessary, reasonable, and allocable. Metropolitan Nashville accepted vendor bids and invoices based on *lump sum* amounts for the demolition of flooded properties making it unknown precisely what costs associated with the demolitions were necessary, reasonable, and allocable.

Increased Cost of Compliance claims submitted for reimbursement did not comply with the National Flood Insurance Program. Claims under the National Flood Insurance Program's Increased Cost of Compliance coverage must fall under these four options:

1. Elevation – This raises your home or business to or above the flood elevation level adopted by your community.
2. Relocation – This moves your home or business out of harm's way.
3. Demolition – This tears down and removes flood-damaged buildings.
4. Flood proofing – This involves making a building watertight through a combination of adjustments or additions.

Under the Increased Cost of Compliance coverage only the demolition of the main structure was eligible for reimbursement. However, Metro Water Services submitted reimbursement claims under the Increased Cost of Compliance coverage for properties with pools, fences, driveways, and de-attached garages. In addition, every property demolished on behalf of Metro Water Services received seed and straw for the entire property. Demolitions of these items were ineligible under the Increased Cost of Compliance coverage. However, all of the items are eligible under the Hazard Mitigation Grant Program.

### ***Recommendation for management of Metro Water Services:***

1. Evaluate the different funding sources available and strategically decide which source more effectively meets the departmental needs.
2. Ensure that only eligible costs are submitted for each type of reimbursement.
3. Work with the Metropolitan Nashville's Purchasing Division to ensure that future bid proposals includes specific language that promotes compliance with grant terms (such as the need to have identifiable cost elements).

### ***Observation B: Re-Categorization of Contractor Cost***

Ineligible costs were approved by re-categorizing them to categories deemed eligible. The categories of eligible cost identified by the National Flood Insurance Program are:

- Removal of Structure
- Clearing site of any remaining material such as the foundation
- Removal of utility systems
- Grade and stabilize the site

In 10 of the 15 properties reviewed that contained National Flood Insurance Program's Increased Cost of Compliance claims (34 properties in total reviewed), the environmental surveys and abatements were categorized as demolition of structure and/or removal of foundation. Other contractor costs were also re-categorized. In each case, Metropolitan Nashville letterhead documents that appeared as invoices were created and submitted as one composite invoice for each property while the actual contractor's invoices were not submitted for review. The specific ineligible items were then approved by insurance companies since they were unaware of the correct cost breakdown.

#### *Recommendation for management of Metro Water Services:*

1. Ensure that invoices created by Metro Water Services represent the actual costs incurred.

### ***Observation C: Re-Categorization of Metro Nashville Supplied Cost***

Costs were not adequately segregated so that the specific amount of material and labor used for each specific job could be identified. This was necessary since Metropolitan Nashville was the *sub-grantee* of the federal grant and demolished the first two projects in-house. In such cases it was necessary to show that Metropolitan Nashville was not profiting by providing the work itself. However, material was ordered in bulk on an *as-needed* basis and demolition crews used the materials without documenting the amount used at each property. Labor provided by individuals who worked on multiple properties also did not document the time spent at each property.

#### *Recommendation for management of Metro Water Services:*

1. Develop policies and procedures for tracking materials and labor that are consistent with grant guidelines whenever applicable.

### ***Observation D: Duplication of Benefits***

Section 312 of the Stafford Act requires Federal Emergency Management Agency and Metropolitan Nashville to avoid duplication of benefits between the Hazard Mitigation Grant Program and any other form of assistance. Duplication of benefits occurs when homeowners or sub-grantees receive funding for the same activity. If funding has already been received for items, Hazard Mitigation Grant Program funds can only be used to cover the portion not previous covered by the original funding.

Generally, duplication of benefits is an issue with property acquisition projects where sub-grantees pay pre-event value for damaged properties. In the case of Metropolitan Nashville's Home Buyout Program homeowners were offered the fair market value of their property just before the flood occurred and as if the property was not in the flood plain. However, if the homeowner received assistance to repair their property before the acquisition, then that amount was deducted from the offer price by Metropolitan

Nashville to avoid a duplication of benefits. If the homeowner can substantiate that they actually spent the money on home repairs then the amount spent would not be considered a duplication of benefits.

### Duplication of Benefit Variances

	DUPLICATION OF BENEFITS (DOB)	RECEIPTS PROVIDED	DOB – RECEIPTS PROVIDED	AMOUNT USED AT CLOSING	AMOUNT OF OVERPAYMENT
Property 1	\$21,498	\$11,660	\$ 9,838	\$ 9,738	\$ 100
Property 2	57,550	3,186	54,364	52,750	1,614
Property 3	47,788	7,350	40,438	39,034	1,404

Source: Office of Internal Audit compiled data from Home Buyout Documentation

In two of the cases, Metro Water Services personnel made a decision to absorb the costs. No documentation was produced showing who authorized this obligation of Metro Nashville funds.

#### *Recommendation for management of Metro Water Services:*

1. Ensure duplication of benefits is accurate and complete before the acquisition of property.
2. If additional information is obtained after acquisition then an attempt to recover those funds should be made.
3. Ensure that funds are only obligated by authorized Metro Water Service employees.

### Other Emerging Risks

The items below are potential risks observed for the consideration of Metro Water Services management and do not require a management response.

1. An improper perception of advisement or other actions could have resulted from a Metro Water Service employee’s unrequired attendance at some, but not all, of the home closings. Although this might be considered by some as good customer service, none of the Metro Water Service staff are licensed or qualified to give legal advice about closing on a property.
2. Homeowners’ information such as social security numbers and addresses were observed stored on an unencrypted thumb drive. Information Security Policy 7.2 prescribes that confidential information be encrypted on storage devices.

## **GOVERNMENT AUDITING STANDARDS COMPLIANCE**

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We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our observations and conclusions based on our audit objectives.

## **METHODOLOGY**

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To accomplish our audit objectives, we performed the following steps:

- Interviewed key personnel within Metro Water Services
- Reviewed and analyzed documentation for compliance with the Tennessee Code Annotated, Metropolitan Nashville Code of Laws, and other applicable laws, regulations, and policies.
- Evaluated internal controls currently in place.
- Reviewed sample selections to determine the effectiveness of internal controls.
- Considered risk of fraud, waste, and abuse.
- Considered information technology risks.

## **AUDIT TEAM**

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Carlos Holt, CPA, CFF, CIA, CGAP, CFE, Audit Manager

Tracy Carter, CFE, Auditor-in-Charge

KARL F. DEAN  
MAYOR



**METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY**

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
1600 SECOND AVENUE, NORTH  
NASHVILLE, TENNESSEE 37208-2206

January 24, 2014

Mr. Mark Swann, Metropolitan Auditor  
Office of Internal Audit  
1417 Murfreesboro Pike  
Nashville and Davidson County  
Nashville, Tennessee 37217

**RE: Audit of the Metro Water Services Home Buyout Program**

Dear Mr. Swann:

This letter acknowledges receipt of the Performance Audit Report and Recommendations for the Metro Water Services Home Buyout Program. The majority of the recommendations either have been implemented or are in the process of implementation. The remaining recommendations will be implemented in a timely fashion. We are satisfied with the audit work completed and the resulting recommendations.

We appreciate the effort put forth by Tracy Carter in performing the audit procedures, as well as the cooperation we received from your office.

Sincerely,

A handwritten signature in blue ink, appearing to read "S. Potter".

Scott Potter, P.E.  
Director



If you need assistance or an accommodation, please contact Metro Water Services, William Coleman at 615-862-4862, 1600 Second Avenue North, Nashville, Tennessee 37208.

## APPENDIX A – MANAGEMENT RESPONSE AND CORRECTIVE ACTION PLAN

Recommendations	Concurrence and Corrective Action Plan	Proposed Completion Date
<b>Management of Metro Water Services should:</b>		
<b>A.1</b> Evaluate the different funding sources available and strategically decide which source more effectively meets the departmental needs.	<b>Agree.</b> We are currently reviewing the different funding sources and do strategically decide which source is more effective and meets departmental needs.	
<b>A.2</b> Ensure that only eligible costs are submitted for each type of reimbursement.	<b>Partially Agree.</b> We are currently reviewing every property that we received funding from ICC to determine which ones had driveways, fences, outbuildings or sidewalks. We then propose to meet with the contractors who did the demolition for these properties and ask them to document the charge for these out of the lump sum demolition bid. With these charges, plus the charges for the environmental surveys in hand, we will then approach the individual insurance companies to see how they would like for us to proceed in order to reimburse these charges. Those charges not covered under ICC will then be filed under HMGP for reimbursement. FEMA guidelines for Eligible Allowances under SFIP Section III Coverage D/Increased Cost of Compliance allows for grading and stabilizing sites in accordance with State or local regulations. MWS Stormwater requires grading and site stabilization. There are several options for stabilization such as seed and straw, use of sod or matting. Seed and straw is the option that is usually chosen because it is more cost effective.	
<b>A.3</b> Work with Metropolitan Nashville Purchasing Division to ensure that future bid proposals includes specific language that promotes compliance with grant terms (such as the need to have identifiable cost elements).	<b>Partially Agree.</b> Lump sum bids are the standard bidding process for contractors submitting bids on Metro jobs to Metro Purchasing. This has also been approved by TEMA & FEMA. FEMA P-321 states that FEMA provides reimbursement for lump sum contracts. In the future, we will use funding sources that do not require a line item breakdown as this method is TEMA/FEMA approved.	

## APPENDIX A – MANAGEMENT RESPONSE AND CORRECTIVE ACTION PLAN

Recommendations	Concurrence and Corrective Action Plan	Proposed Completion Date
<p><b>B.</b> Ensure that invoices created by Metro Water Services represent the actual costs incurred.</p>	<p><b>Partially Agree.</b> Please see the response to Observation A-2 above. Also the abatement of hazardous materials (such as asbestos) is an eligible &amp; covered expense under ICC. Please refer to the email dated November 12, 2013, from TEMA to Stan Robinson that is attached.</p>	
<p><b>C.</b> Develop policies and procedures for tracking materials and labor that are consistent with grant guidelines whenever applicable.</p>	<p><b>Agree.</b> We currently have policies and procedures in place for tracking materials and labor when MWS is demolishing properties. Routine Maintenance tracked materials and labor for the first two projects. MWS Routine Maintenance provided Daily Shift reports and Daily Demolition reports that show hours per day per employee on each property. Material was ordered in bulk on an as needed basis with invoices provided. This material was then allocated per property with an average cost assigned. This is an accepted practice for demolition costs. The costs assigned per property add up to the invoice totals showing that MWS did not make a profit.</p>	
<p><b>D.1</b> Ensure duplication of benefits is accurate and complete before the acquisition of property.</p>	<p><b>Agree.</b> Due to staffing levels immediately following the flood of May 2010, Duplication of Benefits for our first two projects were calculated by AMEC, our consulting engineer firm. In these instances, the homeowners were given credit for items that were ineligible and considered a duplication of benefits. These were later identified while preparing the reimbursement requests and were not included in the requests as they were not deemed valid. That is the reason that after discussion, MWS decided to absorb these costs. From project three onward, we have calculated Duplication of Benefits in-house and this has not been a problem.</p>	
<p><b>D.2</b> If additional information is obtained after acquisition then an attempt to recover those funds should be made.</p>	<p><b>Agree.</b> In the future, attempts will be made to recover funds, if feasible.</p>	

**APPENDIX A – MANAGEMENT RESPONSE AND CORRECTIVE ACTION PLAN**

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Recommendations	Concurrence and Corrective Action Plan	Proposed Completion Date
<p><b>D.3</b> Ensure that funds are only obligated by authorized Metro Water Service employees.</p>	<p><b>Agree.</b> After discussion as to why these overpayments occurred, the Assistant Director of MWS/Stormwater Division authorized these expenditures out of his operating budget. The overpayments were honest mistakes in the process of recovery from an epic flooding event that devastated many property owners. The decision was made to absorb the overpayments and not request the funds from the property owners many weeks after we had closed on their properties. They acted in good faith and we relied on the best available information we had from FEMA at the time we closed.</p>	